

## **SURVEY OF PUBLIC ATTITUDES ON KALAMAZOO RIVER CONTAMINATION ISSUES**

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A telephone survey was conducted to measure the knowledge, beliefs and attitudes on issues relating to the contamination and clean up of the Kalamazoo River in southwest Michigan. A total of N=400 individuals were interviewed via long-distance telephone between April 30 to May 6, 2002. This is a follow-up of similar surveys conducted in 1991 and 1998. All studies were performed by Communication Research Institute of East Lansing, Michigan.

The sample frame was designed to include residents living within about ten miles of the Portage Creek and Kalamazoo River between the cities of Kalamazoo and Saugatuck. The phone sampling lists were drawn from the regional telephone directory and the internet white page directory. Telephone numbers from the smaller towns such as Allegan, Plainwell, Saugatuck, and Douglas were over-sampled in order to provide sufficient sample size for these lightly populated areas near the river.

Interviewers calling from the Michigan State University Communication Survey Lab facility contacted a total of N=650 households; of these, N=400 agreed to be interviewed, a success rate of 62%. On the other hand, 37% refused to be interviewed and 1% discontinued the interview partway through. These rates are consistent with current phone survey research norms.

Based on the large sample size of N=400, the figures in this report can be extrapolated to the overall population within a sampling error range of approximately four percentage points above or below the true percentage if all households near the Kalamazoo River were called. For example, the finding that 39% in this sample believe that the river is "very polluted" can be projected to an actual population figure ranging between 35% to 43%, with a 95% level of confidence that the percentage is accurate; however, it is probable that the error is much smaller than plus or minus 4% (the odds are two-to-one that it falls within two percentage points).

The respondents in the sample can be profiled in terms of six demographic characteristics: age, educational attainment, gender, children under age 10, locale:

<b>Age:</b> 17% 20's	<b>Education:</b> 8% LESS THAN 12TH GRADE
18% 30's	28% HIGH SCHOOL GRADUATE
22% 40's	21% SOME COLLEGE/TECH SCHOOL
29% 50/60's	30% FOUR-YEAR COLLEGE GRADUATE
14% OLDER	13% POST-GRADUATE SCHOOLING

<b>Children under age 10:</b> 22% YES	<b>Gender:</b> 47% MALE
78% NO	53% FEMALE

<b>Locale:</b> 44% KALAMAZOO	10% ALLEGAN	8% SAUGATUCK/DOUGLAS
17% PORTAGE	6% PLAINWELL	4% OTSEGO

Smaller numbers reside in Fennville (2%), Comstock (2%), Hopkins (1%), Parchment (1%), Mendon (1%), Cooper Center (1%), and Oshtemo (1%). The remaining 2% live in rural areas.

The opening portion of the interview sought to secure cooperation and briefly inform respondents about the subject matter. Here is the wording of the introduction: "Hello, this is \_\_\_\_\_ calling from the Communication Research Institute in East Lansing. We're conducting a public opinion poll about environmental issues involving the Kalamazoo River."

The findings will be presented in five sections, describing responses approximately in the order covered in the questionnaire. This is followed by an appendix presenting item-by-item comparisons over time and across geographical locales. The major topical sections are:

- Perceptions of Kalamazoo River Pollution
- Concerns about Effects of Contamination
- Kalamazoo River Recreational Issues
- Beliefs about the Clean-up Process
- Sources of Information about the River
- 1991 vs. 1998 vs. 2002 Trends
- Comparisons across Four Locales

### **Perceptions of Kalamazoo River Pollution**

**"How would you rate the water quality of the Kalamazoo River... is it very clean, somewhat clean, somewhat polluted, or very polluted?"**

1% VERY CLEAN  
11% SOMEWHAT CLEAN  
34% SOMEWHAT POLLUTED  
39% VERY POLLUTED  
15% DON'T KNOW

**"What kind of pollution is in the river?"**

22% PAPER WASTE	30% PCB'S
34% CHEMICALS	9% TOXIC WASTE
8% GARBAGE	4% OTHER
7% SEWAGE	33% <i>DON'T KNOW</i>

The 36% of respondents who did not specifically mention PCBs, chemicals, or toxic waste were asked a follow-up question: **"Do you think there is chemical contamination in the river?"** Affirmative answers are given by more than three-quarters of these remaining persons (which are 28% of the overall sample), while the others in this subgroup either do not think the river is chemically contaminated or are unsure (8% of overall sample; these people were not asked the three follow-up questions in this section).

**“Do you think PCBs are still being released into the river, or is this something that happened in the past?”**

44% STILL RELEASED  
32% HAPPENED IN PAST  
24% *DON'T KNOW*

### **Concerns about Effects of Contamination**

**“Are you concerned about the possible effects that may result from contamination of the Kalamazoo River? PROBE: Which effects concern you?”**

53% GROUNDWATER/DRINKING WATER CONTAMINATION  
31% CONTAMINATED FISH  
12% SAFETY OF RESIDENTS LIVING NEAR RIVER  
9% CANCER RISK  
5% HARM TO WATER FOWL  
5% RISK TO BABIES/YOUNG CHILDREN  
4% NO SWIMMING  
4% NO SPORTS FISHING  
3% AIR POLLUTION  
3% WILDLIFE  
2% NO BOATING  
1% HURTING TOURISM  
1% ENVIRONMENT  
1% GENERAL HEALTH  
1% OTHER  
16% NO, NOT CONCERNED

**“Have you heard the advisory warning about eating fish from the Kalamazoo River? IF YES: Which kinds of fish pose a health risk?”**

Persons citing at least two of the potentially risky types of fish (carp, catfish, bass, or large fish in general) were counted as fully knowledgeable, and those who could cite at least one type were given partial credit.

33% HAVEN'T HEARD WARNING  
45% HEARD WARNING BUT NO KNOWLEDGE  
14% HEARD AND PARTIAL KNOWLEDGE  
8% HEARD AND FULL KNOWLEDGE

**“Have you heard about any animals, birds, or amphibians being harmed by contamination in the Kalamazoo River?” IF YES: “Is the harm to wildlife very serious, somewhat serious, or not serious?”**

79% NO, HAVEN'T HEARD OF HARM  
9% YES: VERY SERIOUS RISK  
10% YES: SOMEWHAT SERIOUS RISK  
1% YES: NOT SERIOUS RISK  
1% YES: NOT SURE OF DEGREE OF RISK

Those perceiving a very serious or somewhat serious risk were asked another follow-up item to specify which species are harmed: **“What types of wildlife are harmed?”**

5% FROG  
4% BALD EAGLE  
4% BIRDS  
3% MINK  
1% MUSKRAT  
2% OTHER SPECIES  
2% NO SPECIES IDENTIFIED  
2% *NOT SERIOUS RISK / NOT SURE*  
79% *HAVEN'T HEARD OF HARM*

### **Kalamazoo River Recreational Issues**

**“In the past year, have you used the Kalamazoo River for recreational purposes, such as fishing, canoeing, swimming, or hiking along the banks? IF YES: How many times did you use the river for recreation? Which activities?”**

7% FISHING  
4% CANOEING  
3% BOATING  
1% SWIMMING  
1% HIKING  
1% OTHER  
86% NO, DON'T USE FOR RECREATION

**“Is the current level of contamination preventing you from using the river?”**

39% YES  
47% NO  
14% *ALREADY USE RIVER FOR RECREATION*

## **Beliefs about Clean-up Process**

**“Have you heard about plans to clean up paper company landfills in the Kalamazoo area and downriver?”**

48% YES

52% NO

**“What do you think should be done about the contaminants in the river... do you think they should use dredging to remove the chemicals, cap the river bottom to cover the chemicals, leave it alone so the river is restored naturally, or use some other method or combination of methods?”**

24% LEAVING IT ALONE

23% DREDGING

6% CAPPING

5% OTHER/COMBINATION

42% DON'T KNOW

Those respondents who favor the dredging option were asked a pair of follow-up questions, beginning with an assessment about whether they believe that this method is risky: **“Do you think there are any risks that would result from dredging?”**

65% YES

13% NO

22% DON'T KNOW

An open-ended item which was posed to those favoring dredging dealt with issue of disposal of the materials: **“What should be done with dredged materials?”** Few individuals had specific responses; 1% of the overall sample recommended depositing dredged materials in landfills.

**“Do you think that dams in the Plainwell and Allegan area should be removed?”**

8% YES

43% NO

49% DON'T KNOW

**“Several government agencies have been involved in studying and cleaning up the river. Recently the main responsibility has shifted from the Michigan Department of Environmental Quality to the US Environmental Protection Agency (EPA). Do you think the EPA will do a better job or worse job in dealing with the clean-up?”**

27% BETTER  
16% SAME  
26% WORSE  
31% DON'T KNOW

**“How many years do you think is a reasonable amount of time to complete the clean-up?”**

17% ONE-THREE YEARS  
25% FOUR-SEVEN YEARS  
32% EIGHT OR MORE YEARS  
26% DON'T KNOW

**“What do you regard as a reasonable total cost for cleaning up the river... about how many million dollars should be spent?”**

1% \$1 MILLION  
4% \$2-4 MILLION  
4% \$5 MILLION  
3% \$10 MILLION  
2% \$15-\$20 MILLION  
1% \$25 MILLION  
3% \$30-\$40 MILLION  
5% \$50-\$75 MILLION  
3% \$100 MILLION  
4% MORE THAN \$100 MILLION  
17% WHATEVER IT TAKES  
53% DON'T KNOW

**“Do you think some of the funds should be spent on enhancement of recreational areas along the river, or should it all be spent on the clean-up?”**

41% SPEND SOME ON RECREATION  
49% SPEND ALL ON CLEAN-UP  
10% DON'T KNOW

**“Do you feel that these companies have acted responsibly in handling the problem so far?”**

10% YES  
26% SOMEWHAT  
38% NO  
26% DON'T KNOW

## **Sources of Information about River**

**“From which one of the following sources have you learned the most information about pollution problems in the river... newspaper, radio, television, family, friends, or government agencies?”**

41% NEWSPAPER  
26% TELEVISION  
3% RADIO  
10% FAMILY  
8% FRIENDS  
1% GOVERNMENT  
7% OTHER  
4% DON'T KNOW

**“Do you feel you are getting enough information about the pollution problems in the Kalamazoo River?”**

37% YES  
58% NO  
5% DON'T KNOW

**“Are you aware of any web sites that contain information about the Kalamazoo River clean-up?”**

4% YES  
87% NO  
9% DON'T KNOW

**“A number of different organizations are involved in the Kalamazoo River clean-up process. For each one that I list, please tell me if you believe that it is very credible, somewhat credible, or not credible as a source of information”**

Michigan Dept. of Natural Resources (DNR)	36% VERY CREDIBLE
	38% SOMEWHAT CREDIBLE
	9% NOT CREDIBLE
	17% DON'T KNOW

Michigan Dept. of Environmental Quality (DEQ)	23% VERY CREDIBLE
	33% SOMEWHAT CREDIBLE
	12% NOT CREDIBLE
	32% DON'T KNOW

Environmental Protection Agency (EPA)	25% VERY CREDIBLE 33% SOMEWHAT CREDIBLE 24% NOT CREDIBLE 18% DON'T KNOW
Michigan Dept. of Community Health	16% VERY CREDIBLE 32% SOMEWHAT CREDIBLE 19% NOT CREDIBLE 33% DON'T KNOW
Kalamazoo River Protection Association	14% VERY CREDIBLE 28% SOMEWHAT CREDIBLE 15% NOT CREDIBLE 42% DON'T KNOW
The paper companies along the river	5% VERY CREDIBLE 14% SOMEWHAT CREDIBLE 59% NOT CREDIBLE 22% DON'T KNOW



## Appendix A: 1991 vs. 1998 vs. 2002 TRENDS

These data compare the results across the three time periods. The 2002 data exclude respondents from Saugatuck/Douglas area at the mouth of the Kalamazoo River, because this area was not included in the 1991 and 1998 samples; thus, the figures differ slightly from the overall 2002 sample.

**“How would you rate the water quality of the Kalamazoo River...  
is it very clean, somewhat clean, somewhat polluted, or very polluted?”**

<u>1991</u>	<u>1998</u>	<u>2002</u>	
1%	1%	1%	VERY CLEAN
9%	16%	11%	SOMEWHAT CLEAN
44%	41%	33%	SOMEWHAT POLLUTED
35%	26%	40%	VERY POLLUTED
11%	16%	15%	DON'T KNOW

**“What kind of pollution is in the river?”**

24%	24%	34%	CHEMICALS
10%	13%	30%	PCB'S
34%	30%	23%	PAPER WASTE
8%	9%	9%	TOXIC WASTE
13%	17%	8%	GARBAGE
10%	11%	6%	SEWAGE
13%	12%	4%	OTHER
25%	23%	33%	DON'T KNOW

**“Do you think there is chemical contamination in the river?”**

50%	40%	29%	YES
16%	14%	8%	NO/NOT SURE.
34%	46%	63%	<i>CITED CHEMICALS/PCB'S/TOXIC WASTE ABOVE</i>

**“Do you think PCBs are still being released into the river, or is this something that happened in the past?”**

52%	---	45%	STILL RELEASED
20%	---	32%	HAPPENED IN PAST
28%	---	23%	<i>DON'T KNOW</i>

**“Are you concerned about the possible effects that may result from contamination of the Kalamazoo River? PROBE: Which effects concern you?”**

1991   1998   2002

42%	39%	54%	GROUNDWATER/DRINKING WATER CONTAMINATION
32%	20%	31%	CONTAMINATED FISH
18%	11%	12%	SAFETY OF RESIDENTS LIVING NEAR RIVER
6%	5%	9%	CANCER RISK
16%	3%	5%	HARM TO WATER FOWL
8%	4%	4%	RISK TO BABIES/YOUNG CHILDREN
11%	11%	6%	NO SWIMMING/BOATING
15%	15%	4%	NO SPORTS FISHING
6%	2%	3%	AIR POLLUTION
1%	1%	3%	WILDLIFE
0%	1%	1%	HURTING TOURISM
2%	2%	1%	ENVIRONMENT
2%	2%	1%	GENERAL HEALTH
9%	15%	1%	OTHER
17%	19%	15%	NO, NOT CONCERNED

**“Have you heard the advisory warning about eating fish from the Kalamazoo River? IF YES: Which kinds of fish pose a health risk?”**

21%	39%	33%	NO, HAVEN'T HEARD WARNING
53%	28%	44%	HEARD WARNING BUT NO KNOWLEDGE
14%	21%	15%	HEARD AND PARTIAL KNOWLEDGE
12%	12%	8%	HEARD AND FULL KNOWLEDGE

**“Have you heard about any animals, birds, or amphibians being harmed by contamination in the Kalamazoo River?” IF YES: “Is the harm to wildlife very serious, somewhat serious, or not serious?”**

---	82%	78%	NO, HAVEN'T HEARD OF HARM
---	7%	10%	YES: VERY SERIOUS RISK
---	8%	10%	YES: SOMEWHAT SERIOUS RISK
---	1%	1%	YES: NOT SERIOUS RISK
---	2%	1%	YES: NOT SURE OF DEGREE OF RISK

**“What types of wildlife are harmed?”**

---	6%	5%	FROG
---	1%	4%	BALD EAGLE
---	2%	4%	BIRDS
---	1%	2%	MINK
---	1%	1%	MUSKRAT

1991   1998   2002

---	1%	2%	OTHER SPECIES
---	6%	2%	NO SPECIES IDENTIFIED
---	3%	2%	<i>NOT SERIOUS RISK / NOT SURE</i>
---	82%	78%	<i>HAVEN'T HEARD OF HARM</i>

**“In the past year, have you used the Kalamazoo River for recreational purposes, such as fishing, canoeing, swimming, or hiking along the banks?”**

***IF YES: Which activities?”***

---	9%	6%	FISHING
---	8%	4%	CANOEING
---	3%	2%	BOATING
---	2%	1%	SWIMMING
---	4%	1%	HIKING
---	1%	1%	OTHER
---	80%	87%	NO, DON'T USE FOR RECREATION

**“Is the current level of contamination preventing you from using the river?”**

---	39%	39%	YES
---	61%	61%	NO/ALREADY USE RIVER FOR RECREATION

**“Have you heard about plans to clean up paper company landfills in the Kalamazoo area and downriver?”**

---	20%	51%	YES
---	80%	49%	NO

**“What do you think should be done about the contaminants in the river... do you think they should use dredging to remove the chemicals, cap the river bottom to cover the chemicals, leave it alone so the river is restored naturally, or use some other method or combination of methods?”**

---	---	24%	LEAVING IT ALONE
---	---	23%	DREDGING
---	---	6%	CAPPING
---	---	5%	OTHER/COMBINATION
---	---	42%	DON'T KNOW

**“Do you think there are any risks that would result from dredging?”**

---	---	15%	YES
---	---	3%	NO
---	---	5%	DON'T KNOW
---	---	77%	<i>DIDN'T FAVOR DREDGING</i>

**“Do you think that dams in the Plainwell and Allegan area should be removed?”**

1991   1998   2002

---	---	8%	YES
---	---	44%	NO
---	---	48%	DON'T KNOW

**“Several government agencies have been involved in studying and cleaning up the river. Recently the main responsibility has shifted from the Michigan Department of Environmental Quality to the US Environmental Protection Agency (EPA). Do you think the EPA will do a better job or worse job in dealing with the clean-up?”**

---	---	28%	BETTER
---	---	16%	SAME
---	---	26%	WORSE
---	---	30%	DON'T KNOW

**“How many years do you think is a reasonable amount of time complete the clean-up?”**

---	---	17%	ONE-THREE YEARS
---	---	26%	FOUR-SEVEN YEARS
---	---	32%	EIGHT OR MORE YEARS
---	---	25%	DON'T KNOW

**“What do you regard as a reasonable total cost for cleaning up the river... about how many million dollars should be spent?”**

---	2%	1%	\$1 MILLION
---	8%	4%	\$2-4 MILLION
---	5%	3%	\$5 MILLION
---	4%	4%	\$10 MILLION
---	4%	3%	\$15-\$20 MILLION
---	3%	1%	\$25 MILLION
---	2%	2%	\$30-\$40 MILLION
---	2%	5%	\$50-\$75 MILLION
---	2%	3%	\$100 MILLION
---	2%	4%	MORE THAN \$100 MILLION
---	19%	16%	WHATEVER IT TAKES
---	47%	54%	DON'T KNOW

**“Do you think some of the funds should be spent on enhancement of recreational areas along the river, or should it all be spent on the clean-up?”**

1991   1998   2002

---	---	40%	SPEND SOME ON RECREATION
---	---	50%	SPEND ALL ON CLEAN-UP
---	---	10%	DON'T KNOW

**“Do you feel that these companies have acted responsibly in handling the problem so far?”**

23%	15%	10%	YES
17%	12%	25%	SOMEWHAT
34%	31%	40%	NO
25%	42%	25%	DON'T KNOW

**“From which one of the following sources have you learned the most information about pollution problems in the river... newspaper, radio, television, family, friends, or government agencies?”**

66%	50%	41%	NEWSPAPER
14%	17%	26%	TELEVISION
5%	5%	3%	RADIO
4%	7%	11%	FAMILY
3%	7%	7%	FRIENDS
2%	4%	1%	GOVERNMENT
3%	4%	7%	OTHER
3%	6%	4%	DON'T KNOW

**“Do you feel you are getting enough information about the pollution problems in the Kalamazoo River?”**

46%	37%	37%	YES
43%	52%	57%	NO
11%	11%	6%	DON'T KNOW

**“Are you aware of any web sites that contain information about the Kalamazoo River clean-up?”**

---	---	4%	YES
---	---	87%	NO
---	---	9%	DON'T KNOW

**“A number of different organizations are involved in the Kalamazoo River clean-up process. For each one that I list, please tell me if you believe that it is very credible, somewhat credible, or not credible as a source of information”**

**Michigan Dept. of Natural Resources**

1991   1998   2002

64%	48%	38%	VERY CREDIBLE
28%	39%	36%	SOMEWHAT CREDIBLE
3%	4%	10%	NOT CREDIBLE
5%	9%	16%	DON'T KNOW

**Michigan Dept. of Environmental Quality**

---	39%	24%	VERY CREDIBLE
---	35%	32%	SOMEWHAT CREDIBLE
---	2%	12%	NOT CREDIBLE
---	24%	32%	DON'T KNOW

**Environmental Protection Agency**

55%	39%	26%	VERY CREDIBLE
30%	41%	32%	SOMEWHAT CREDIBLE
7%	7%	24%	NOT CREDIBLE
8%	13%	18%	DON'T KNOW

**Michigan Dept. of Community Health**

46%	26%	17%	VERY CREDIBLE
38%	38%	32%	SOMEWHAT CREDIBLE
8%	6%	19%	NOT CREDIBLE
8%	30%	32%	DON'T KNOW

**Kalamazoo River Protection Association**

34%	28%	15%	VERY CREDIBLE
23%	32%	28%	SOMEWHAT CREDIBLE
3%	7%	15%	NOT CREDIBLE
40%	33%	42%	DON'T KNOW

**The paper companies along the river**

10%	6%	6%	VERY CREDIBLE
31%	34%	14%	SOMEWHAT CREDIBLE
32%	26%	59%	NOT CREDIBLE
27%	34%	21%	DON'T KNOW